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DR - 0460-U

FS - CPI

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MC - A02-A03 A04-F04 A04-F06E A10-B01 A10-G01B A12-E07A A12-E07C L03-D05A  
L04-C20A

PA - (TAKJ) TAISEI KAKO CO

PN - JP3193905B2 B2 20010730 DW200146 C08F2/00 007pp  
- JP2000086706 A 20000328 DW200026 C08F2/00 009pp

PR - JP19980200545 19980715

XA - C2000-090521

XIC - C08F-002/00 ; C08F-002/04 ; C08F-004/04 ; C08F-220/18

XR - 2001-194667

AB - JP2000086706 NOVELTY - A new method of producing copolymer comprises polymerizing a specific monomer mixture in a solvent and fulfilling polymerisation within 10 hrs. The copolymer contains up to 1,000 ppm of remaining acidic or basic olefin polymerizing moieties or up to 5,000 ppm of remaining moieties other than the olefin polymerizing moieties and up to 100 ppm of polymerisation initiator.

- DETAILED DESCRIPTION - A new method of producing copolymer comprises polymerizing a specific monomer mixture in a solvent having a boiling point of 60-100 deg. C and fulfilling polymerisation within 10 hrs. The copolymer contains up to 1,000 ppm of remaining acidic or basic olefin polymerizing moieties or up to 5,000 ppm of remaining moieties other than the olefin polymerizing moieties and up to 100 ppm of polymerisation initiator. The monomer mixture comprises (A) 1-60 wt.% of monomers of formula (1), (B) 0.1-40 wt.% of monomers of formula (2), (C) 0.1-40 wt.% of (metha)acrylic acid, and (D) 0-60 wt.% of polymerizing compounds. At first, the half of the monomer mixture is put in a reactor in a manner that the concentration of the monomer mixture is controlled to be at least 60 % and the concentration of initiator is also controlled at least 0.08% and the temperature of the monomer mixture is elevated to the boiling point of the solvent within 30 minute. If necessary, after at least 80 % of the monomer mixture is reacted, a pressure of up to 1 kg/cm<sup>2</sup> is applied to the monomer mixture to fulfil polymerisation. The monomer mixture is contacted with an ion-exchanging material to remove remaining coloured moieties and remaining polar moieties.

- CH<sub>2</sub>=C(CH<sub>3</sub>)-COOR<sub>1</sub> (1)

- CH<sub>2</sub>=C(H)-COOR<sub>2</sub> (2)

- R<sub>1</sub> = 1-4C alkyl group;

- R<sub>2</sub> = 1-8C alkyl group

- USE - For producing copolymers with reduced amount of impurities including impurities having reducing and/or oxidizing power. The copolymers are used for semiconductor devices or circuit boards.

- ADVANTAGE - Copolymers having reduced amount of impurities are produced within 10 hrs.

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- (Dwg.0/0)

IW - PRODUCE COPOLYMER FREE INORGANIC ORGANIC IMPURE TEN HOUR RADICAL  
POLYMERISE SOLUTION

IKW - PRODUCE COPOLYMER FREE INORGANIC ORGANIC IMPURE TEN HOUR RADICAL  
POLYMERISE SOLUTION

NC - 001

OPD - 1998-07-15

ORD - 2000-03-28

PAW - (TAKJ ) TAISEI KAKO CO

TI - Producing copolymers free of inorganic and organic impurities - within  
ten hours by radical polymerisation in solution

A01 - [001] 018 ; G0022-R D01 D51 D53 D60 ; G0022-R D01 D51 D53 D67 ;  
G0384-R G0339 G0260 G0022 D01 D12 D10 D26 D51 D53 D58 D63 F41 F89 D11  
D85 D86 D87 D88 ; R00479 G0384 G0339 G0260 G0022 D01 D11 D10 D12 D26  
D51 D53 D58 D63 D85 F41 F89 ; G0340-R G0339 G0260 G0022 D01 D12 D10  
D26 D51 D53 D58 D63 F41 F89 D11 D84 D85 D86 D87 D88 D89 D90 D91 ;  
R00460 G0306 G0271 G0260 G0022 D01 D12 D10 D26 D51 D53 D58 D60 D84 F36  
F35 ; R00446 G0282 G0271 G0260 G0022 D01 D12 D10 D26 D51 D53 D58 D60  
D83 F36 F35 ; H0011-R ; L9999 L2528 L2506 ; L9999 L2664 L2506 ;  
P0088

- [002] 018 ; ND03 ; B9999 B4535 ; N9999 N6177-R ; N9999 N6893 N6655  
; Q9999 Q7454 Q7330 ; Q9999 Q7476 Q7330

- [003] 018 ; D01 F13 ; R00426 D01 D11 D10 D50 D88 F12 F13 ; C999  
C088-R C000 ; C999 C293

- [004] 018 ; A999 A475 ; B9999 B5572-R

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